(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 25 April 2002 (25.04.2002)

PCT

(10) International Publication Number WO 02/33572 A2

- (51) International Patent Classification7:
- G06F 17/00
- (21) International Application Number: PCT/EP01/11990
- (22) International Filing Date: 16 October 2001 (16.10.2001)
- (25) Filing Language:

English

(26) Publication Language:

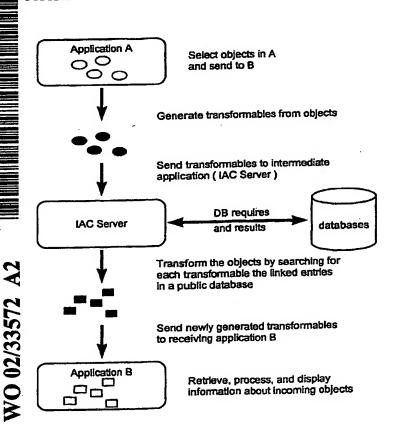
English

- (30) Priority Data: 09/688,174 00127973.6 60/278,746
- 16 October 2000 (16.10.2000) US 20 December 2000 (20.12.2000) EP 27 March 2001 (27.03.2001) US
- (71) Applicant (for all designated States except US): LION BIOSCIENCE AG [DE/DE]; Im Neuenheimer Feld 515, 69120 Heidelberg (DB).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CROFT, David [GB/DE]; Hauptstrasse 238, 69117 Heidelberg (DE). RICHTER, Stefan [DE/DE]; Leimer Strasse 7, 69126 Heidelberg (DE). MINCH, Erie [US/DE]; Altes Holz 4, 69207 Sandhausen (DE). WEISS, Stefan [DE/DE]; Bert-Brecht-Strasse 13, 69190 Walldorf (DE). MUNRO, Robin [GB/DE]; Neuenheimer Landstrasse 5, 69120 Heidelberg (DE).
- (74) Agent: SCHOHE, Stefan; Boehmert & Boehmert, Hollerallee 32, 28209 Bremen (DE).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR PASSING INFORMATION BETWEEN APPLICATIONS ON A COMPUTER SYSTEM



(57) Abstract: The invention relates to a method for passing information between different applications running on one or more computers comprising the following steps: providing output information from a source application, passing said output information to an intermediate application, establishing, in said intermediate application, input information for a target application that is related to the output information of said source application by a predetermined rule, passing said input information to said target application and inputting said input information to said target application, and to a related computer system.

Claims

- 1. Method for passing information between different applications running on one or more computers comprising the following steps:
 - providing output information from a source application,
 - passing said output information to an intermediate application,
 - establishing, in said intermediate application, input information for a target application that is related to the output information of said source application by a predetermined rule,
 - passing said input information to said target application and inputting said input information to said target application.
- 2. Method according to claim 1 comprising the following steps:
 - sending a first message from said source application to said intermediate application, said message comprising:
 - output information from said source application,
 - information designating a target application,
 - establishing, by said intermediate application, input data for said target application according to a predetermined rule on the basis of at least said output information contained in said message,
 - sending a second message containing at least said input information from said intermediate application to the target application designated in said first message.
- 3. Method according to claim 2, wherein said intermediate application applies a predetermined rule to the information contained in said first message when establishing said input information for said target application.
- 4. Method according to one of claims 1 or 2, characterized in that said intermediate application uses a rule communicated by said source application.

- 5. Method according to one of claims 1 to 4, wherein said intermediate application is run on an interapplication communication server different from the hardware on which the source application and/or target application are run.
- 6. Method according to one of claims 1 to 5, wherein said rule is a relation directly assigning one or more values of input variables for said target application to the value of an output variable of said source application.
- 7. Method according to one of claims 1 to 6, wherein processing said rule comprises executing a procedure comprising:
 - establishing a query for a database on the basis of said output information,
 - executing the query in said database,
 - determining the input information for that target application on the basis of the result of said query.
- 8. Method according to claim 7, characterized in that the database to be searched by the intermediate application is selected on the basis of information passed on by said source application.
- 9. Method according to claim 7, characterized in that a message is passed from the source application to the intermediate application containing information about one or more databases of which one or more are to be used by said intermediate application for evaluating said rule.
- 10. Method according to one of claims 1 to 9, characterized in that information passed on between the source application and the intermediate application is in a generic format.
- 11. Method according to one of claims 1 to 10, characterized in that said source application provides as output information information about genes or proteins or metabolic pathways and said target application receives as input information information about proteins, genes or metabolic pathways, wherein the type of the output information of the source application is different from the type of the input to the target application.

- 12. Method according to one of claims 1 to 11, characterized in that information is passed from a single source application to a plurality of target applications, wherein the intermediate application establishes for each of said target applications input information derived from one output information item on the basis of a rule for the respective target application and passes each respective input information on to the respective target application.
- 13. Computer system comprising means for simultaneously running at least two applications adapted for exchanging information with each other, said computer system further comprising communication means for passing information between these two applications, said communication means comprising the following:
 - means for passing output information from a source application to an intermediate application for processing according to a predetermined rule to yield input information for a target application, both said source application and said target application running on said computer system,
 - means for receiving said input information for said target application from said intermediate application and inputting said input information to the target application.
- 14. Computer system according to claim 13, characterized in that said computer system comprises means for running said intermediate application.
- 15. Computer system according to claim 13 or 14, characterized in that it is adapted to perform a method according to one of claims 1 to 12.
- 16. Computer system according to claim 13, characterized in that said intermediate application is running outside said computer system, said computer system comprising means to communicate with the hardware on which the intermediate application is running.
- 17. Computer system according to claim 16, characterized in that the computer system is adapted to interact with an intermediate application according to a method of one of claims 1 to 12.

- 18. Computer system having installed thereon an application capable of communicating with other applications which may or may not be installed on the same computer system, characterized in that it comprises:
 - means for sending output information from said application to an intermediate application, which may or may not be running on said computer system, for processing according to a predetermined rule to yield input for a further application.
 - means for receiving input information for said application derived from output information of another application by said intermediate application on the basis of a predetermined rule and for inputting said information into said application.
- 19. Computer system having installed thereon an application capable of communicating with other applications which may or may not be installed on the same computer system, characterized in that it comprises:
 - means for receiving output information from a source application,
 - means for processing, by said application installed on the computer system, said output information from said source application according to a predetermined rule to yield input information for a target application,
 - means for forwarding said input information to said target application.
- 20. Computer program, which, when executed on a computer system, causes a computer system to perform the following:
 - forwarding output information from a source application running on the computer system to an intermediate application for processing said output information according to a predetermined rule to yield input information for an application different from said source application,
 - receiving input information for a target application running on the computer system from an intermediate application which has been derived by said intermediate application from the output information from an application different from said target application on the basis of a predetermined rule and inputting said input information to said target application.

- 21. Computer program according to claim 20, characterized in that the program is configured to cause the computer system to make an application act as a source application and as a target application for other applications.
- Computer program according to claim 20 or 21, characterized in that said program is configured to establish the passage of information from a first application running on the computer system, acting as a source application, to a second application, acting as a target application and running on said computer system, via said intermediate application, which may or may not be running on said computer system.
- 23. Computer program according to one of claims 20 to 22, characterized in that said program is configured to cause a computer system to perform a method according to one of claims 1 to 12.
- 24. Computer program configured to cause a computer system, when executed on said computer system, to run an intermediate application for communication between a source application and a target application, said intermediate application performing the following:
 - receiving output information from a source application,
 - processing said output information from said source application according to a
 predetermined rule to yield input information for a target application,
 - forwarding said input information to said target application.
- 25. Computer-readable storage medium comprising program code configured to cause a computer system, when executed on said computer system, to run a program according to one of claims 20 to 24.